What is claimed is:

1. A positive airway pressure system for treatment of a sleeping disorder in a patient, comprising:

a generator supplying airflow and applying a pressure to an airway of a patient;

a sensor measuring data corresponding to patient's breathing patterns; and

a processing arrangement analyzing the breathing patterns to determine whether the breathing patterns are indicative of one of the following patient's states: (i) a regular breathing state, (ii) a sleep disorder breathing state, (iii) a REM sleep state and (iv) a troubled wakefulness state, the processing arrangement adjusting the applied pressure as a function of the patient's state.

2. The system according to claim 1, wherein, when the breathing patterns indicate one of states (i), (ii) or (iii), the processing arrangement controls the generator to adjust the pressure to a first value and wherein, when the breathing patterns indicate state (iv), the processing arrangement controls the generator to adjust the pressure to a second value.

3. The system according to claim 1, wherein the sensor measures at least one of an airflow rate and a currently applied pressure.

4. The system according to claim 2, wherein the processing arrangement determines the breathing patterns as a function at least one of the airflow rate and the currently applied pressure.

5. The system according to claim 1, wherein the processing arrangement determines the patient's state as a function of at least one of a patient's blood pressure, a heart rate and EEG data.

6. The system according to claim 3, wherein processing arrangement monitors and adjusts the airflow and the pressure supplied by the generator until the system is disengaged.

7. The system according to claim 1, further comprising:

a mask placed on a face of the patient and covering at least one of the mouth and the nose of the patient.

8. The system according to claim 7, further comprising:

a tube connecting the mask to the flow generator for supplying the airflow to the patient.

9. The system according to claim 1, further comprising:

a venting arrangement preventing the patient from rebreathing of the exhaled airflow.

10. The system according to claim 1, wherein the breathing patterns are stored in a database of the processing arrangement, the processing arrangement determining the patient's state as a function of currently detected breathing patterns and previous breathing patterns stored in the database.

11. The system according to claim 1, wherein when the breathing patterns indicate a change from one of states (i), (ii), (iii) to the state (iv), the processing arrangement

controls the generator to reduce the pressure.

12. The system according to claim 1, wherein when the breathing patterns indicate a change from state (iv) to one of states (i), (ii) and (iii), the processing arrangement controls the generator to increase the pressure supplied by the generator.

13. The system according to claim 1, wherein when the breathing patterns indicate one of an elevated upper airway resistance, hypopnea and a repetitive obstructive apnea, the processing arrangement controls the generator to increase the pressure supplied by the generator.

14. The system according to claim 1, wherein when the detected breathing pattern is indicative of the state (iii), the processing arrangement controls the generator to maintain a current level of the pressure supplied by the generator.

15. A method for treatment of sleeping disorder in a patient using a positive airway pressure, comprising the steps of:

supplying an airflow to an airway of a patient using a flow generator;

measuring data corresponding to the patient's breathing patterns;

analyzing with the processing arrangement the data corresponding to the breathing patterns to determine whether the breathing patterns are indicative of at least one of the following patient states: (i) a regular breathing state, (ii) a sleep disorder breathing state, (iii) a REM sleep state, and (iv)

a troubled wakefulness state; and

using the processing arrangement, controlling the generator to adjust the supplied pressure as a function of the patient's state.

16. The method according to claim 15, further comprising the steps of:

when the breathing patterns indicate one of states (i) (ii) and (iii), controlling the generator to adjust the supplied pressure to a first value; and

when the breathing patterns indicate the state (iv), controlling with the processing arrangement the flow generator to adjust the supplied pressure to a second value.

17. The method according to claim 15, wherein the measuring step includes the substep of:

measuring at least one of an airflow rate and an applied pressure using a sensor.

18. The method according to claim 17, wherein the data corresponding to the breathing patterns includes one of the airflow rate and the applied pressure.

19. The method according to claim 15, wherein the analyzing step further includes the substep of:

determining with the processing arrangement the patient's state as a function of at least one of a patient's blood pressure, a heart rate and EEG data.

20. The method according to claim 15, further comprising

the step of:

monitoring and adjusting the pressure supplied by the generator until the processing arrangement receives a signal to disengage.

21. The method according to claim 15, further comprising the step of:

placing a mask on a face of the patient and covering at least one of the mouth and the nose of the patient.

22. The method according to claim 21, further comprising the step of:

connecting to the mask to the generator using a tube.

23. The method according to claim 15, further comprising the step of:

providing a venting arrangement to prevent the patient from rebreathing exhaled airflow.

24. The method according to claim 15, further comprising the steps of:

storing the breathing patterns of the patent in a database of the processing arrangement; and

determining the patient's state as a function of a current rebreathing pattern and the previous breathing patterns stored in the database.

25. The method according to claim 15, further comprising the step of:

controlling the generator to reduce the supplied pressure

when the breathing pattern indicates a change from one of the states (i), (ii) & (iii) to the state (iv).

26. The method according to claim 15, further comprising the step of:

controlling the flow generator to increase the supplied pressure when the breathing pattern indicate change from the state (iv) to one of the states (i), (ii) & (iii).

27. The method according to claim 15, further comprising the step of:

controlling the generator to increase the supplied pressure when the breathing pattern indicates one of an elevated upper airway resistance, hypopnea and a repetitive obstructive apnea.

28. The method according to claim 15, further comprising the step of:

controlling the generator to maintain the supplied pressure at a current level when the breathing pattern indicates the state (iii).